

Serial No. 10/736,155 - Hatfield *et al.*

In the Claims

Amend claims 1, 7 and 14, cancel claim 13, and add new claims 15-17 as follows:

1. (Currently amended) A method for the reduction of proteolysis in ensiled crops comprising contacting a crop material to be ensilaged with an o-diphenol compound and polyphenol oxidase at the time of ensilaging in an amount effective to reduce the degree of proteolysis of the crop material, wherein said crop material is selected from the group consisting of alfalfa, corn, wheat, triticale, rye, barley, oat, pea, sorghum, sudan, millet, and lentil.

2. (previously presented) The method of claim 1 wherein the amount of said o-diphenol and said polyphenol oxidase is sufficient to reduce the degree of proteolysis by at least 20%.

3. (previously presented) The method of claim 1 wherein the o-diphenol compound is applied to the crop material to be ensilaged at a rate ranging from about 5 to about 30 micromoles per gram fresh weight and the polyphenol oxidase is applied to the crop material to be ensilaged at a rate ranging from about 0.1 to about 1.0 unit per gram fresh weight.

Serial No. 10/736,155 - Hatfield *et al.*

4. (previously presented) The method of claim 1 wherein the crop material to be ensilaged is macerated to a conditioning index ranging from 30 to 60.

5. (previously presented) The method of claim 1 wherein the o-diphenol compound is selected from the group consisting of caffeic acid, catechol, chlorogenic acid, phasic acid, rosmarinic acid, caffeoyl tartrate, and caffeoyl glucose.

6. (cancelled).

7. (Currently amended) A method for the reduction of proteolysis in ensiled crops comprising contacting a polyphenol oxidase transformed crop to be ensilaged with an o-diphenol compound at the time of ensilaging in an amount effective to reduce the degree of proteolysis in the crop, wherein said crop is selected from the group consisting of alfalfa, corn, wheat, triticale, rye, barley, oat, pea, sorghum, sudan, millet, and lentil.

8. (previously presented) The method of claim 7 wherein the quantity of said o-diphenol compound is sufficient to reduce the degree of proteolysis by at least 20%.

Serial No. 10/736,155 - Hatfield *et al.*

9. (cancelled).

10. (previously presented) The method of claim 7 wherein the crop to be ensilaged is macerated to a conditioning index ranging from about 30 to about 60.

11. (previously presented) The method of claim 7 wherein the *o*-diphenol compound is selected from the group consisting of caffeic acid, catechol, chlorogenic acid, phasic acid, rosmarinic acid, caffeoyl tartrate, and caffeoyl glucose.

12. (cancelled).

13. (Cancelled).

14. (Currently amended) A method for the reduction of proteolysis in ensiled crops consisting essentially of contacting a crop material to be ensilaged with an *o*-diphenol compound and polyphenol oxidase at the time of ensilaging in an amount effective to reduce the degree of proteolysis of the crop material, wherein said crop material is selected from the group consisting of alfalfa, corn, wheat, triticales, rye, barley, oat, pea, sorghum, sudan, millet, and lentil.

Serial No. 10/736,155 - Hatfield *et al.*

15. (new) The method of claim 1 wherein said crop material is selected from the group consisting of alfalfa and oat.

16. (new) The method of claim 7 wherein said crop is selected from the group consisting of alfalfa and oat.

17. (new) The method of claim 14 wherein said crop material is selected from the group consisting of alfalfa and oat.